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THE MARINE MOLLUSCAN FAUNA FROM THE VICINITY OF BOLINAS
BAY, CALIFORNIA.

BY BRUCE L. CLARK.

Bolinas Bay lies about ten miles to the north of the Golden Gate. It is one of the few coves along the rocky coast of Marin County where good collections of marine shells may be obtained. W. M. Wood in vol. xi, no. 5, p. 49 the *NAUTILUS*, describes Bolinas Bay as the "Conchologist's Paradise;" certainly there are very few places along the coast of middle California where specimens may be found in such great abundance.

At Bolinas we find two different types of shore line, the long spit which nearly cuts off the bay from the ocean and the rocky beach. Duxbury Reef, about two miles to the southwest of the town of Bolinas, extends out into the ocean for over a mile. This is bared at low tide and is one of the best localities that can be imagined for collecting certain rock-loving species. For a more complete description of this locality the reader is referred to the paper mentioned above.

In March, 1913, the Pacific Conchological Club took a trip to Bolinas Bay for the purpose of making collections at that point. The material collected on this excursion was turned over to the writer for determination. This collection was considerably augmented by Mr. Daniel Emery, who visited Bolinas Bay at a later date. He collected out on the reef and

obtained certain species that had never been reported in this vicinity before.

The list of species given below is the largest ever reported from Bolinas Bay. It includes a number of forms that had heretofore not been reported as far north. Two other lists of species from this locality have been published, one by Robt. E. C. Stearns in 1866, the other by W. M. Woods in 1897. Mr. Stearns published a list of eighty-three marine species.¹ Mr. Wood, to whose paper reference has already been made, listed seventy-nine species. The number of species in the collection of the Pacific Conchological Club is ninety-seven. To this may be added those listed by Stearns and Wood and not found in the Pacific Conchological Club collections, making a total of one hundred and twenty-seven species from this locality.

Species collected at Bolinas Bay by the Pacific Conchological Club.

<i>Amphineura</i>	Macoma secta Conrad
<i>Ischnochiton raymondi</i> Pils.	Macoma, n. sp.?
<i>Cryptochiton stelleri</i> Midd.	Modiola recta Conrad
<i>Mopalia vespertina</i> Gould	Monia macrochisma Deshayes
<i>Mopalia muscosa</i> Gould	Mytilus californicus Conrad
<i>Pelecypoda</i>	Mytilus edulus Linnaeus
<i>Adula falcata</i> Gould	Paphia tenerrima Carpenter
<i>Adula stylina</i> Carpenter	Paphia staminea Conrad
<i>Anomia lampe</i> Gray	Paphia staminea rugerata
<i>Cardita subquadrata</i> Carpenter	Desh.
<i>Cardium corbis</i> Martyn	Paphia staminea Conrad var.
<i>Chama exogyra</i> Conrad	orbella
<i>Chama pellucida</i> Sowerby	Parapholas californicus Conrad
<i>Cryptomya californica</i> Conrad	Petricola carditoides Conrad
<i>Macoma balthica</i> Linnaeus	Pecten giganteus Gray
<i>Macoma cf. inflatula</i> Dall	Pecten hastatus Sowerby
<i>Macoma inquinata</i> Deshayes	Pholadidea penita Conrad
<i>Macoma nasuta</i> Conrad	Platydon cancellatus Conrad
	Saxicava pholadis Linnaeus

¹ Proc. Calif. Acad. Sci., vol. iii, p. 275.

Saxicava rugosa Linnaeus	Diala sp.?
Saxidomus nuttalli Conrad	Epitonium indianorum Hinds
Schizothærus nuttalli Conrad	Fissuridea aspera Esch.
Semele rubropieta Dall	Haliotus rufescens Swains
Siliqua lucida Conrad	Haliotus cracherodii Leach
Siliqua nuttalli Conrad	Lacuna porrecta exaequata Carpenter
Solen sicareus Gould	Littorina planaxis Philippi
Spisula catilliformis Conrad	Littorina scutulata Gould
Tellina bodegensis Hinds	Margarites acuticostatus Cpr.
Tellina buttoni Dall	Megatebennus bimaculatus Dall
Zirphea crispata Linnaeus	Nassa cooperi Forbs
Xylotrya setacea Tryon	Nassa fossata Gould
<i>Gasteropoda</i>	
Acmæa asmi Middendorf	Nassa mendica Gould
Acmæa seabra Eschscholtz	Nassa perpinguis Gould
Acmæa spectrum Reeve	Ocinebra lurida mynda Cpr.
Acmæa mitra Eschscholtz	Ocinebra lurida Middendorf
Acmæa pelta Eschscholtz	Ocinebra interfossa Cpr.
Acmæa patina Eschscholtz	Odostomia tenuis Carpenter
Acanthina engonata Conrad	Olivella biplicata Sowerby
Amalthea cranoides Carpen- ter	Olivella intorta Carpenter
Amphissa corrugata Reeve	Polynices lewisii Gould
Amphissa versicolor Dall	Polynices draconica Dall
Bittium eschrichti Midd.	Purpura foliata Gould
Calliostoma costatum Martyn	Tegula funebrale A. Adams
Cerithidea californica Hald.	Tegula brunnea Philippi
Chrysodomus dirus Reeve	Tegula montereysi Kien
Columbella (Astyris) gausa- pata Gould	Tegula pulligo Martyn
Columbella (Astyris) gausa- pata carinata Hinds	Thais lamellosa Gmelin
Crepidula adunca Sowerby	Thais lima Martyn
Crepidula nivea Gould	Thais saxicola Valenciennes
<i>Species collected by Robt. E. C. Stearns at Bolinas Bay and not found in the collection of the Pacific Conchological Club.</i>	
<i>Amphineura</i>	
Tonicella lineata Wood	Pelecypoda
	Clidiophora sp.

Macoma secta var. <i>edulis</i> Nutt.	Lacuna unifasciata Cpr.
Pholadidea <i>ovoidea</i> Gould	Lacuna <i>solidula</i> Sby.
Semele <i>rubiolineata</i> "auct. non Conrad"	Muricidea <i>californica</i> Hinds
Venerupis <i>lamellifera</i> Con.	Murex <i>trialatus</i> Sowerby
<i>Gasteropoda</i>	Ocinebra <i>lurida</i> Midd. var. <i>aspera</i> Bairs
Acmaea <i>insessa</i> Hinds (Na- cella <i>insessa</i> Hinds)	Tegula <i>montereyi</i> Kien (<i>Chlorostoma pfeifferi</i> Phil.)
Acmaea <i>instabilis</i> Gld. (Na- cella <i>instabilis</i> Gld.)	Thais <i>lamellosa</i> var. <i>ostrina</i> Gould
Acmaea <i>triangularis</i> Cpr. ¹	
Fissuridea <i>murina</i> Dall (<i>Gly-</i> <i>phis densiclathrata</i> Rve.)	

*Species collected by W. M. Wood at Bolinas Bay and not
found in the Pacific Conchological Club collections or
in the list given by Stearns.*

<i>Amphineura</i>	Saxicava <i>arctica</i> Linn.
Mopalia <i>hindssii</i>	
<i>Pelecypoda</i>	<i>Gasteropoda</i>
Entodesma <i>saxicola</i> Baird	Crepidula <i>navicelloides</i> Nut- tall (<i>C. nivea</i> Gould)
Kellia <i>laperousii</i> Deshayes	Haliotes <i>fulgens</i> Phil.
Lithophagus <i>plumulata</i> Hanl.	Hipponyx <i>tumens</i> (<i>Amalthea</i> <i>tumens</i> Cpr.)
Lyonsia <i>californica</i> Conrad	Margarites <i>pupilla</i> Gould
Mytilimeria <i>nuttalli</i> Conrad	
Pholadidea <i>parva</i> Tryon	

STUDIES IN NAJADES.

BY A. E. ORTMANN.

(Continued from page 22.)

LEXINGTONIA nov. gen.

Shell subquadrate or subtrapezoidal, with slightly elevated beaks, and well developed hinge teeth. Beaks not much an-

¹ According to Kepp probably a variety of *A. paleacea* Gld.